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Remarks

Entry of the above-noted amendments, reconsideration of the application, and allowance of all claims pending are respectfully requested. Previously pending claims 1-11 and new claims 12-13 are presented.

Applicant's arguments presented below focus on certain patentable differences between the invention as claimed and the applied references. However, it is not to be inferred that the failure to argue all differences between the claimed subject matter and the applied references constitutes acceptance of assertions made in the Office Action of alleged similarities between elements of the claimed subject matter and the applied references.

Claim Rejections - 35 U.S.C. §103

Claims 1-5 and 8-11 were rejected under 35 U.S.C. 103 as being on patentable over Advanced TCA: PICMG 3.0 Short Form Specification (ATCA) in view of US 20040131065 A1 (Sandy). This rejection is respectfully traversed as explained below.

MPEP §706.02(j) states: "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." (Emphasis added.)

Re: Claim 1.

Applicants respectfully submit that the applied references, with or without modification or combination, assuming, *arguendo*, that the modification or combination of the applied references is proper, does not teach or suggest one or more elements of claim 1. It was acknowledged in the Office Action that ATCA did not disclose "providing decision-making intelligence" as required by claim 1. More specifically in accordance with claim 1, the CPU on the first system circuit board is solely responsible for decision-making intelligence for management control for a predetermined number of system circuit boards and is also responsible for the decision-making intelligence for end-user services directly supported by the first system circuit board. Sandy is relied upon as teaching this requirement. However, Sandy does not in fact provide a teaching of the required limitation. Each of the cited sections of Sandy relied upon in the Office Action is discussed below.

However, prior to discussing the teachings of Sandy, it is important to understand the subject requirement of claim 1:

said CPU being solely responsible for decision-making intelligence for management control for at least a predetermined number of system circuit boards while also being responsible for the decision-making intelligence for end-user services directly supported by the first system circuit board.
(Bold emphasis added.)

That is, the CPU of the system circuit board is solely responsible for decision-making intelligence for management control of other system circuit boards. Also recited in claim 1:

means contained on the auxiliary circuit board for providing input and output communications between the CPU and devices external to both the first system circuit board and auxiliary circuit board, at least some of said devices comprising sensors that sense parameters related to management control of the electronic shelf;
(Bold emphasis added.)

That is, the CPU engages in communications with external devices with sensors that sense parameters related to management control of the electronic shelf. It is clear from the language of

claim 1 that the management control for which the CPU has sole decision-making intelligence is for management control of other system circuit boards and that the CPU communicates with external devices with sensors that sense management parameters. The specification provides examples of management parameters such as fan speed information, air flow information, temperature readings, voltage and current levels, the status of mechanical latches and sensors, etc. (See Detailed Description of FIG. 3) Therefore, management control involves the communication of electronic shelf control parameters, i.e. parameters that are not associated with the normal processing of the design objective of the system boards such as telecommunications among users. (See Detailed Description, first paragraph)

In the Office Action, Sandy was relied upon as providing the required teachings in accordance with claim 1 with respect to the required decision-making intelligence. It was alleged that Sandy disclosed providing decision-making intelligence with external devices at least some of which comprise sensors that sense parameters related to management control of the shelf; citing paragraph 33, "other nodes 404, 406, 408". In paragraph 33 the embodiment of FIG. 4 is being discussed. "As shown in FIG. 4, node 402 comprises receiver channels 434, 436, 438, which are coupled to receive a plurality of packets 414, 416, 418 from other nodes 404, 406, 408"; paragraph 32. That is, nodes 404, 406, 408 refer to other communication nodes similar to node 402 as shown in FIG. 4 suited to be disposed in a communication mesh as shown in FIG. 2. Paragraph 33 merely discusses the techniques utilized to communicate with other like nodes and indicates that each of the communication links with the other nodes may utilize different bandwidths and clock speeds. One of ordinary skill of the art would understand that the bandwidth and clock speeds associated with communications between the respective nodes relates to the basic communication function required to pass user information among nodes/users. More importantly, it is clear that the description in accordance with paragraph 33 does not teach: a decision-making intelligence for the management control of other system circuit boards, or communications with devices having sensors that sense parameters related to management control of the electronic shelf, as required by claim 1.

Citing paragraph 44 it is alleged that Sandy teaches that the CPU is solely responsible for decision-making intelligence for management control of at least a predetermined number of

system circuit cards. In paragraph 44 following language is cited, "plurality of packets... are aggregated in plurality of stages 451 prior to entering... traffic manager". Paragraph 44 refers to the embodiment of FIG. 4. The packets 414, 416, 418 are the packets received from nodes 404, 406, 408, respectively. Paragraph 44 discusses aggregating or combining these packets in stage 451 prior to being further processed by the traffic manager 407. The advantages of such a combining is also discussed in this paragraph. One of ordinary skill in the art will understand that there is nothing inherent with respect to the way packets received from other nodes are processed that would cause one to understand that management control of other system circuit cards was being addressed. For the purpose of argument, even if the stages as shown in FIG. 4 of Sandy were disposed on different circuit boards at one node (which is not believed to be taught by Sandy), the mere passing/processing of information associated with the designed purpose of providing user communications does not constitute "management control" in accordance with claim 1. Therefore, paragraph 44 does not supply a teaching as required by claim 1.

The language of **paragraph 23** was also cited, "collect, classify, modify (if necessary) and transport information". Paragraph 23 relates to the embodiment of FIG. 3 and generally describes functions of the traffic manager 307. The entirety of the quotation must be read in order to appreciate what is being conveyed. "The function of traffic manager 307 is to collect, classify, modify (if necessary) and transport information, usually in the form of packets 314, 316 to and from other nodes 304, 306 in distributed switch fabric network 300." All of the functions described relate to the processing of packets from other nodes to achieve the end-user communications supported by a node. It is true that various processing of the packets that contained the user information must occur in order for the information to be recovered and/or transmitted to the appropriate destination. However, such processing of end-user packets, even if the processing occurs on more than one circuit board, does not constitute decision-making intelligence for management control of other circuit boards. Nothing in paragraph 23 suggests that the CPU communicates with external devices that include sensors that sense parameters related to the management control of the electronic shelf itself. Therefore, paragraph 23 does not provide a teaching of the requirements in accordance with claim 1.

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Each of the three paragraphs of Sandy relied on in the Office Action have been carefully analyzed in view of the requirements of claim 1. Sandy is directed to a distributed switch fabric in which each of the nodes is responsible for and capable of switching and processing packets received from other nodes in order to properly handle user information contained in these packets. Sandy is silent with respect to management control as used in claim 1. Sandy does not teach or suggest a communication between a CPU and an external device comprising sensors that sense parameters related to the management control of the electronic shelf. All of the processing of the packets discussed in Sandy relate to the end-user processing required in order to switch or deliver user information associated with these packets. Therefore, Sandy does not supply a teaching of the elements of claim 1 for which it is relied upon in the Office Action. The withdrawal of the rejection of claim 1 under 35 U.S.C. 103 is requested.

ATCA teaches away from the requirements of claim 1

It is well-settled that teachings of a reference that teach away from a limitation of the claimed invention must be considered as well as teachings of the reference that could point towards the invention.

...an applicant may rebut a prima facie case of obviousness by showing that the prior art teaches away from the claimed invention in any material respect. *In re Geisler*, 116 F.3d at 1469, 43 USPQ2d at 1365 (quoting *In re Malagari*, 499 F.2d at 1303, 182 USPQ at 553). *In re Peterson*, 315 F.3d 1325, 65 USPQ2d 1379 (CA FC 2003)

Figures 7 and 8 as shown on pages 12 and 13 of ATCA illustrate two embodiments of a system manager arrangement for an electronic shelf. Both embodiments shown in figures 7 and 8 are the same with regard system management in that each teaches the use of a shelf manager which is on a separate circuit board(s) with a corresponding CPU, i.e. the shelf manager CPU is allocated only to maintenance issues. This is believed to be representative of the prior art in which a separate allocated circuit board with its corresponding CPU is utilized to perform shelf management. Therefore, ATCA teaches away from the requirements of the present invention as defined by claim 1 in which a CPU on a first system circuit board provides decision-making intelligence for both end-user services supported by that circuit board as well as management

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control for predetermined number of the other circuit boards. This contrary teaching rebuts the prima facie obviousness stated in the Office Action in that it teaches away from the requirements of claim 1. Further, this contrary teaching would motivate one of ordinary skill the art NOT to make the alleged combination of teachings of ATCA with Sandy since to make the alleged combination would be contrary to teachings of ATCA itself.

The rejection of independent method claim 8 should be withdrawn for similar reasons discussed above with regard to claim 1.

New dependent claims 12-13 are presented and depend from claim 1.

Pursuant to MPEP 706.07(c), it would be inappropriate to make an Office Action final should new references be applied in support of a rejection of any of claims 1-11 since applicant has made no amendments to these claims to necessitate such a change of position.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney.

Respectfully submitted,



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Dated: June 5, 2006

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